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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. Application No. 18329-008001 10/616,869

Applicant Sandeep Gulati

ormation Disclosure Statement by Applicant (Use several sheets if necessary)

Filing Date Group Art Unit July 9, 2003 2857

U.S. Patent Documents										
Examine Initial	r Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate			
120	AA	3786341	01/15/74	Anderson et al.						
	AB	4665440	¿05/12/87	Tromberg						
	AC	4686695	08/11/87	Macovski, Albert						
	AD	5134528	07/28/92	Sato						
	AE	5168499	12/01/92	Peterson et al.						
	AF	5236826	08/17/93	Marshall						
	AG	5389512	02/14/95	Sninsky et al.						
	AH	5442593	08/15/95	Woodbury et al.						
	AI	5445934	· 08/29/95	Fodor et al.						
	AJ	5462879	10/31/95	Bentsen						
	AK	5492840	02/20/96	Malmqvist et al.						
	AL	5552270	09/03/96	Khrapko et al.		·				
	AM	5561071	10/01/96	Hollenberg et al.						
	AN	5576176	11/19/96	Adams et al.						
	AO	5605662	02/25/97	Heller et al.						
	AP	5631134	05/20/97	Cantor						
	AQ	5631734	05/20/97	Stern et al.						
	AR	5632041	05/20/97	Peterson et al.						
	AS	5679510	10/21/97	Ray et al.						
	AT	5683881	11/04/97	Skiena						
	AÜ	5688648	11/18/97	Mathies et al.						
	AV	5700637	12/23/97	Southern						
ı	AW	5733729	03/01/98	Lipshutz						
	AX	5741644	04/21/98	Kambara et al.						
	AY	5763175	06/09/98	Brenner						
	AZ	5817462	10/06/98	Garini et al.						
	ВА	5825936	10/20/98	Clarke et al.						

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	closure Statement	Applicant Sandeep Gulati		
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(37 CFR §1.98(b))		July 9, 2003	2857	

U.S. Patent Documents										
Examiner Initial	Desig. ID	Document · Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate			
021	BB	5848996	12/15/98	Eldor	Class	00001033	Пирриорнае			
0.3	BC	5858659	01/12/99	Sapolsky						
	BD	5858732	01/12/99	Solomon et al.			<del></del>			
	BE	5863764	01/26/99	Hillman et al.						
	BF	5874214	02/23/99	Nova et al.	<del>                                     </del>	· · ·	:			
	BG	5885578	03/23/99	Salk et al.	-					
	ВН	5925525	07/20/99	Fodor			<u> </u>			
		<del></del>	10/1999	Fodor						
	BI	5968740								
	BJ	5974164	10/26/99	Chee	<del></del>					
	BK	6025601	02/15/00	Trulson						
	BL	6066454	05/23/00	Lipshutz et al.						
	ВМ	6090555	07/18/00	Fiekowsky et al.						
	BN	6171793	01/09/01	Phillips						
	во	6185561	02/06/01	Balaban et al.						
	BP	6218122	04/17/01	Friend et al.						
	BQ	6223127	04/24/01	Вегпо						
	BR	6225625	05/01/01	Pirrung et al.						
	BS	6228593	05/08/01	Lipschutz et al.						
	вт	6229911	05/08/01	Balaban						
	BU	6242180	06/05/01	Chee						
	BV	6245511	06/12/01	Gulati						
	вw	6294327	09/25/01	Walton et al.						
	вх	6308170	10/23/01	Balaban						
	BY	6342355	01/29/02	Hacia						
	BZ	6344316	02/05/02	Lockhart						
	CA	6361937	03/26/02	Stryer						
	СВ	6368799	·04/09/02	Chee						

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		closure Statement	Applicant Sandeep Gulati	
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ı	l (37 CFR §1.98(b))		July 3, 2003	2037

			U.S. Pate	nt Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
031	CC	6370478	04/09/02	Stoughton			
	CD	6391550	05/21/02	Lockhart			
	CE	6420108	07/16/02	Mack			
	CF	6453241	09/17/02	Bassett		-	
	CG	6468744	10/22/02	Cronin			
	СН	6490533	12/03/02	Weiner			
	CI	6671625	12/30/03	Gulati, Sandeep			
	CJ	6704662	03/09/04	Gulati			
	CK	6780589	08/24/04	Gulati			
	CL	6963806	11/08/05	Gulati			
	СМ	2003/0044775	03/06/03	Gulati			
	CN	2003/0215867	11/20/03	Gulati			<u> </u>
1	СО	2004/0064261	04/01/04	Gulati			
	СР	2004/0111219	06/10/04	Gulati	1		

	Foreig	n Patent Doc	uments or Pu	ıblished Foreign	Patent A	Application	าร	
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ası	CQ	0077149	01/02/86	ЕР				
	CR	0426564	12/28/94	EP				
	CS	0437829	10/05/94	EP				
	ст	0802426	11/14/01	EP				
	CU	0854197	07/22/98	EP				
	CV	1026260	08/09/00	EP				
	cw	1145177	10/20/04	ЕР				
	CX	1145181	10/20/04	EP				
	CY	1157347	10/20/04	EP				
	CZ	1406201	04/07/04	EP				

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office			
************	closure Statement	Applicant Sandeep Gulati		
by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date July 9, 2003	Group Art Unit 2857	

	Foreig	n Patent Doc	uments or P	ublished Foreign	Patent A	Application	าร	
Examin		Document	Publication	Country or		0		slation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
081	DA	00/05408	02/03/00	PCT			<u> </u>	
	DB	00/12759	03/09/00	PCT			,	
	DC	00/28091	05/18/00	PCT				
	DD	00/39339	07/06/00	PCT				
	DE	00/51055	08/31/00	PCT		,		
	. DF	00/51056	08/31/00	PCT				
	DG	00/52625	09/08/00	PCT				
	DH	2004/102456	11/25/04	PCT				
	DI	93/13711	07/22/93	PCT				
	DJ	93/21339	10/28/93	PCT				
	DK	97/02488	01/23/97	PCT				
	DL	98/07888	02/26/98	PCT				
	DM	98/37417	08/27/98	PCT				
	DN	98/48048	10/29/98	PCT				
	DO	99/31275	06/24/99	PCT				
	DP	99/39008	08/08/99	PCT				
	DQ	99/44063	09/02/99	PCT				
	DR	99/45148	09/10/99	PCT				
	DS	99/66024	12/23/99	PCT				

Other Documents (include Author, Title, Date, and Place of Publication)						
Examiner Initial	Desig. ID	Document				
asi	DT	Alacid et al., "Bound and resonance states by a time-independent filter diagonalization method for large Hamiltonian systems," Chemical Physics Letters 305: 258-262 (1999)				
1.	DU	Ando, B. and S. Graziani, Stochastic Resonance: Theory and Applications, Boston: Kluwer Academic Publishers, pp. 11-91 (2000)				
	DV	Baez et al., "Irving Ezra Segal (1918-1998)," Notices of the American Mathematical Society 46(6): 659-668 (June/July 1999)				
	DW	Brockman, J., "Whole-Loan Traders Find Marketplace on Web Site," American Banker 163(36): 10 (February 24, 1998)				

Examiner Signature	a.	Shir	Date Considered	3/15/07
EXAMINER: Initials cita	tion considered	. Draw line through citation if	not in conformance and n	ot considered. Include copy of this form with
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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
OSI	DX	Brody et al., "Geometry of Quantum Statistical Interference," Physical Review Letters 77(14): 2851-2855 (Sep. 30, 1999)
	DY	Brown, P.O. and D. Botstein, "Exploring the New World of the Genome with DNA Microarrays," Nature Genetics 21 (Suppl.): 33-37 (Jan., 1999)
	DZ	Caldiera, A.O. and A.J. Leggett, "Quantum Tunnelling in a Dissipative System," Annals of Physics, 149: 374-456 (1983)
	EA	Chandre et al., "Kolmogorov-Arnold-Moser renormalization-group approach to the breakup of invariant tori in Hamiltonian systems," Physical Review E 57(2): 1536-1543 (Feb., 1998)
	ЕВ	Daido, "Multibranch Entrainment and Scaling in Large Populations of Coupled Oscillators", Phys. Rev. Lett. 77: 1406-1409 (1996)
	EC	Dailey P.J. and D. Hayden, "Viral load assays: methodologies, variables, and interpretation," Chapter 13 in: Cohen PT, Sande MA, Volberding PA, eds. The AIDS knowledge base: a textbook on HIV disease from the University of California, San Francisco, and San Francisco General Hospital. 3d ed. San Francisco: HIV InSite, 1998 & also available at the: The AIDS Knowledge Base [online] (April, 1998), http://hivinsite.ucsf.edu/skb/current/02qrna/index.html> [retrieved on 10/05/00]]
	ED	Darling et al., "Adiabatic Analysis of Quantum Dynamics", Physical Review Letters, 78(9): 1731-1734 (March 3, 1997)
	EE	Finkelstein, B., "Secondary market participants seek to do business on website," Origination News; 7(9): 100 (June, 1998)
	EF	Freeman, M., "Automated MBS Trading - A First at First Boson," Wall Street & Technology 11(13): 10 (May 1994)
	EG	Gammaitoni et al., "Extraction of Periodic Signals from a Noise Background", Physics Letters A, 142(2-3): 59-62 (Dec. 4, 1989)
	EH	Gammaitoni et al., "Stochastic Resonance", Review of Modern Physics, 70(1): 223-287 (Jan., 1998)
	EI	Gardner, William, A. (Ed.), Cyclostationarity in Communications and Signal Processing, New York: IEEE Press, pp. 46-47 (1994)
	EJ	GeneChip produced by Affymetrix, <a href="http://www/affymetrix.com/products/arrays/index.affx">http://www/affymetrix.com/products/arrays/index.affx</a> , 1 page, (accessed on 12/12/05)
	EK	Gonima, L., "Simple algorithm for the atmospheric correction of reflectance images," International Journal of Remote Sensing 14(6): 1179-1187 (1993)
	EL	Goychuk, I. and P. Hänggi, "Quantum Stochastic Resonance in Parallel", New Journal of Physics, 1: 14.1-14.14 (Aug. 27, 1999)
	ЕМ	Grifoni et al., "Dissipation, Decoherence and Preparation Effects in the Spin-Boson System," The European. Phys. J. B 10: 719-729 (Feb., 1999)
	EN	Ter Haar, D., "The Canonical Equations of Motion," Chapter 5 in Elements of Hamiltonian Mechanics, Amsterdam: North-Holland Publishing Company, pp. 95-103 (1961)
	EO	Harris, F. and D.S. King, "Adaptive filters using fractal dimension of data," Proceedings of the Asilomar Conference on Signals, Systems, and Computers, NewYork: IEEE, 24: 278-282 (November 5, 1990)
	EP	Heller et al., "Discovery and analysis of inflammatory disease-related genes using cDNA microarrays," Proceedings of the National Academy of Sciences (USA), 94: 2150-2155 (March, 1997)

Examiner Signature	a.	RUSH	7	Date Considered	15/07
EXAMINER: Initials ci	tation conside	ered. Draw line through	citation if no	t in conformance and n	ot considered. Include copy of this form with
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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office			
	losure Statement plicant	Applicant Sandeep Gulati		
(Use several sheets if necessary) (37 CFR §1.98(b))		Filing Date July 9, 2003	Group Art Unit 2857	

	Oth	er D	ocuments (include Author, Title, Date, and Place of Publication)
Examine Initial		esig. ID	Document
as	081 E		Imafuku et al., "Quantum Stochastic Resonance in Driven Spin-Boson System with Stochastic Limit Approximation," arXiv:quant-ph/9910025 1: 1-9 (October 6, 1999)
		ER	Jordan et al., "The Variational Formulation of the Fokker-Planck Equation," Siam. J. Math. Anal., 29(1): 1-17 (Jan. 1998)
		ES	Keegan, J., "Big Pension Funds Like Calpers Get Comfy with Private Equity," Investment Dealers' Digest-IDD pp. 13 (August 24, 1998)
	]	ЕТ	Kilin et al., "Complex Quantum Structure of Nonclassical Superposition States and Quantum Instability in Resonance Fluorescence," Physical Review Letters 76(7): 1051-1054 (1996)
	1	EU	Knight, A., "Whole loans on the Net," Wall Street & Technology 16(1):74 (Jan. 1998)
	I	EV	Leggett et al., "Dynamics of the Dissipative Two-State System," Reviews of Modern Physics 59(1): 1-85 (Jan. 1987)
	E	EW	Lemm et al., "A Bayesian Approach to Inverse Quantum Statistics", Physics Review Letters, 84(10): 2068-2071, (March 6, 2000)
	I	EX	Lew, R.R. and C.L. Schauf, "Fractal Filtering of Channel Data," Biochim Biophys ACTA 1023(2): 305-311 (1990)
	EY EZ		Li, C. and W.H. Wong et al., "Model-Based Analysis of Oligonucleotide Arrays: Expression Index Computation and Outlier Detection," Proc. Natl. Acad. Sci. USA 98(1): 31-36 (Jan. 2, 2001)
			Lin et al., "A porous silicon-based optical interferometric biosensor," Science 278: 840-843 (1997)
	I	FA	Lindner et al., "Array enhanced stochastic resonance and spatiotemporal synchronization," Physical Review Letters 75(1): 3-6 (July 3, 1995)
	I	FB	Löcher et al., "Spatiotemporal Stochastic Resonance in a System of Coupled Diode Resonators", Physical Review Letters, 77(23): 4698-4701 (Dec. 2, 1996)
	I	FC	Lofstedt, R. and S.N. Coppersmith, "Quantum Stochastic Resonance," Phys Rev. Letters, 72(13): 1947-1950 (1994)
	F	FD	Makarov, D.E. and N. Makri, "Stochastic resonance and nonlinear response in double-quantum-well structures," Physical Review B 52(4): R2257-R2260 (Jul 15, 1995)
	I	FE	Maybeck, P.S., "Introduction," Chapter 1 in Stochastic Models, Estimation, and Control, Volume 1, New York: Academic Press, pp. 1-16 (1979)
	l	FF	McNamara, B. and K. Wisenfeld, "Theory of Stochastic Resonance," Phys Rev. A 39: 4854-4869 (May 1, 1989)
	F	FG	Merigan, T., "Individualization of therapy using viral markers," Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology 10(Suppl 1): S41-S46 (1995)
	F	FH	Mitaim et al., "Adaptive Stochastic Resonance," Proceedings of the IEEE 86(11): 2152-2183 (November, 1998)
		FI	Nishiyama, "Numerical Analysis of the Dissipative Two-State System with the Density-Matrix Hilbert-space-reduction Algorithm," The European Physical Journal B, 12:547-554, (1999)
	1	FJ	Pathria, R.K., "The Theory of Simple Gases," Chapter 6 in Statistical Mechanics, Toronto: Pergamon Press, pp. 136-147 (1972)
	F	FK	Setala, J., "The Future of Ag Lending Part III: Ag Lender Perspectives," Agri Finance 2(4): 1, 6-9 (April, 1998)
	F	FL	Simonotto et al., "Visual Perception of Stochastic Resonance", Phys Rev. Lett. 78: 1186-1189 (Feb. 10, 1997)

Examiner Signature	O.	SUSS	Date Considered 3/15/07
EXAMINER: Initials of	tation conside	ered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with
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Information Disci		Applicant Sandeep Gulati		
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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Desig.		•
Initial	ID	Document
(XS) FM		Sinnock, B., "MBS Trade Slows As Benchmark Bond Yields Spread Prepays Fears," National Mortgage News 22(13): 6 (December 1997)
	FN	Somaroo et al., "Expressing the Operations of Quantum Computing in Multiparticle Geometric Algebra", Phys. Lett. A 240: 1-7 (March 23, 1998)
FO		Stinchcombe, R.B. and G.M. Schütz, "Application of Operator Algebras to Stochastic Dynamics and the Heisenberg Chain", Physical Review Letters, 75(1): 140-143 (Jul. 3, 1995)
	FP	Tsaur, G. and J. Wang, "Energy diffusion due to non-linear perturbation on linear Hamiltonians," Physical Review E. 54(5): 4657-4666 (1996)
	FQ	Van Leeuwen, R., "Causality and Symmetry in Time-Dependent Density-Functional Theory", Physical Review Letters, 80(6): 1280-1283 (Feb. 9, 1998)
	FR	Vitali, D. and R. Mannella, "Quantum Stochastic Resonance in the Dissipative Two-State Systems," Il Nuovo Cimento della società italianian di fisica 17D(7-8):959-967 (July, 1995)
FS		Wells, D.A., "Hamilton's Equations of Motion," Chapter 16 in Theory and Problems of Lagrangian Dynamics with a treatment of Euler's Equations of Motion, Hamilton's Equations and Hamilton's Principles, Schaum's Outline Series, New York: McGraw-Hill Company, pp.316-321 (1967)
FT		Wornell et al., "Estimation of Fractal Signals from Noisy Measurements Using Wavelets," IEEE Transactions on Signal Processing 40(3): 611-623 (March, 1992)

Examiner Signature	a - 8	11582	Date Considered	3/15/07
EXAMINER: Initials of	itation considered	d. Draw line through citation if no	t in conformance and no	t considered. Include copy of this form with
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Information Disclosure Statement by Applicant				Applicant Sandeep Gulati				
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			U.S. Pater	nt Documents				
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051	AA	6,136,541	10/24/00	Gulati				
	AB	6,142,681	11/7/00	Gulati				
	AC	5,784,162	7/21/98	Cabib et al				
	AD							
	AE							
	AF							
	AG							
	AYY	<u> </u>						

Foreign Patent Documents or Published Foreign Patent Applications									
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